IdleAire Technologies Corporation

Advanced Travel Center Electrification

For

National Transportation Idle Free Corridors

New York, NY April 14, 2004

Carol Doty, Manager Strategic Affairs





Trucking Industry Background

- Delivers 87% of all hard goods in U.S.
- Employs 9.9 million Americans
- Operates 2.6 million tractor-trailers



Background

Trucking a physically demanding job

- Average 500 miles per day
- Work 26⁺ days per month
- Idle trucks 40 60 % of work time
- Drive 11 hours -- rest at least 10 hours
 - Idle engine for cab comfort
 - May not rest well (noise, vibration)
 - Resting environment may contribute to unsafe drivers





Background

Extended Engine Idling Doesn't Please Anyone



- Elevated RPM (950+ RPM)
- Engine loading 10-30 brake hp
- Extended time periods (30 minutes to over 8 hours)
- Causes additional engine wear
 (1 hr Idle = 7 mi Road)
- Neighborhood noise
- Air pollution

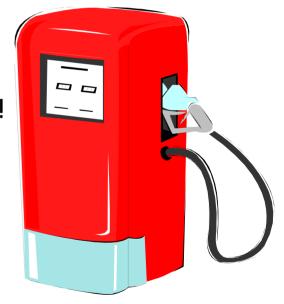


Background

Fuel Consumed in Idling

Annual Impact:

- 4.4 billion gallons (100+ million barrels)*
- \$6.6 billion cost to truck owners (@\$1.50/gal)
- ~18% of America's Strategic Petroleum Reserves!
- 3.2% of Imported Crude Oil



*1.0 gal/hour x 3,366 Hours / truck x 1,300,000 trucks



The Idling Situation

Idling Creates Emissions & Noise

Emission*	Single Truck (g/hr)	Single Truck (MTons/yr)**	100 Spaces 14.4Hrs/Day (MTons/yr)	1.3 million trucks (MTons/yr)**
NO_{x}	135.00	0.46	70.96	590,733
PM	3.68	0.012	1.94	16,103
VOC	6.84	0.023	3.59	29,930
CO	56.14	0.19	29.51	245,657
CO_2	10,397	34.99	5,464.66	45,495,193
	10,598.66	35.68	5,570.66	46,377,616



Atlanta Petro ATE





Atlanta -- April 2003





IdleAire Service Module

Night Light

Lighted On/Off Button for the screen, so you can find it easily in the dark

Card Reader

Slide your member Card and follow instructions

Built-In Touch Screen Computer

Control your "Home-On-The-Road" and surf the Internet

Help

Available 24x7, On-Screen Context-Sensitive Help or dial 611 from your cab phone or 800-738-7024 from any phone

110V Electric Outlets

Inside and Outside your cab for appliances, block/fuel heaters and other accessories

Ge

General Charges

News

Sports

Directories

Weather Maps

Trucking Links

IA Locations

Check Out

Internet

High-Speed Ethernet Port for Internet on your Computer -Wireless Internet also available

Central Heat & Air

Thermostat controlled filtered air flow, recycled from your cab

Go Buttons

IdleAire

Browser

deAire

Help Or Call Still Free 1-877-738-7024

Idle

access the web sites. You can also play in a USB levibour

One-Touch Access to Main Functions

USB Ports

Use a keyboard, mouse or other USB devices

Telephone

Plug in a regular phone for incoming and outgoing calls

Television

Connect your TV with standard COAX cable for Premium Satellite TV



ATE Reduces Emissions

Layover Emissions--100 Parking Spaces

Emission*	Single Truck (g/hr)	100 Spaces 14.4 Hrs/Day (M tons/yr)	% Emissions Removed **
NO_x	135.00	71	98.4%
PM	3.68	1.93	99.5%
VOC	6.84	3.6	99.7%
CO	56.14	29.51	99.7%
CO_2	10,397	5,465	88.7%
	10,598	5,570	97.2%



Atlanta Petro Emissions Reductions

Emissions in Metric Tons

	Hours	Total Emissions	NOx	VOC	CO	PM	CO2
2003	224,666	1,893	30.33	1.54	12.61	0.83	1,847.65
2004	32,340	272	4.37	0.22	1.82	0.12	265.96
Total	257,006	2,165	34.70	1.76	14.43	0.95	2,113.62

63 Parking Spaces April - December 2003 January - February 2004



ATE Reduces Fuel Use

Spaces	Fuel Saved (Gallons) 1yr	Value (@\$1.50/Gal)
50	262,800	\$394,200
100	525,600	\$788,400
200	1,051,200	\$1,576,800

14.4 hours/day/space, 365 days per year.1 gallon fuel use per hour.



ATE

Proven Occupancy & Usage

Installation	Spaces	Hours	First Visits	Total Hookups	% Returning
DeWitt Travel Plaza	20	2332.6	107	195	45.10%
Hunts Point	21	1957.2	95	171	44.40%
Petro - Knoxville - Watt Rd.	82	26309.7	684	2058	66.80%
Chittenango Travel Plaza	23	2592.2	143	245	41.60%
Petro - Atlanta	62	29309.9	674	1903	64.60%
Bruces - Bakersfield, CA	51	19470.4	341	984	65.30%
Petro - Los Banos, CA	65	23336.8	702	1343	47.70%
Loves - Ripon, CA	69	28089.7	499	1320	62.20%
Loves - Lost Hills, CA	49	7970.1	335	694	51.70%
Petro - West Memphis	42	25123.2	613	1821	66.30%
TA - Dallas	54	39509.3	811	2203	63.20%
TA - San Antonio, TX	60	35614.5	1153	2256	48.90%
TA - Baytown, TX	51	35360.2	996	1940	48.70%
Totals:	649	276975.8	7153	17133	58.30%

IdleAire Members: 60,650⁺

Total Hours: 1,222,293

Fuel Saved: 1,222,293g⁺

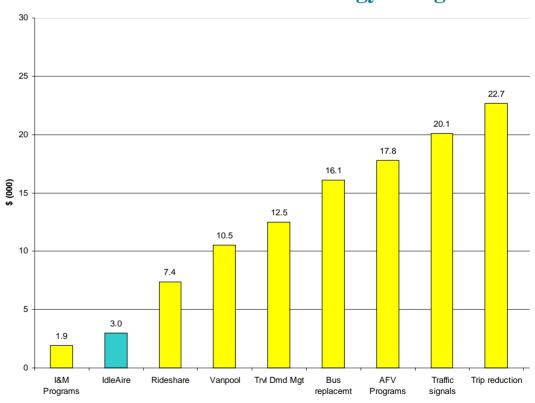
Emissions Saved (Gross/Net): 12,953/8,284 Metric Tons



CMAQ Cost Effectiveness Comparison

$\begin{array}{c} \text{Cost-effectiveness per Ton of NO}_x \\ \text{Reduction. IdleAire Versus the} \\ \text{Nine Best Technology Categories} \end{array}$

- 5 Year NOx Rate is \$4,851 /
 Metric Ton
- 15 Year NOx Rate is \$3,010 / Metric Ton
- National CMAQ Median\$66,300



Source: U.S. Department of Transportation's CMAQ Program



ATE for Today & Tomorrow

Planning for the Future

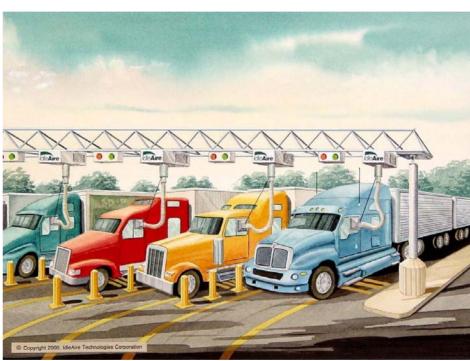
- ATE provides truck stop electrification (TSE) today
 - Includes HVAC
 - Includes computer, TV, movies & other services
 - Optional Refrigeration power
- Tomorrow's electric truck can use ATE
 - We'll remove HVAC
 - "Future truck" plugs into shore power
 - Includes Communication & Entertainment



ATE: Dream to Reality



Chittenango Plaza -- May 2003



Concept Drawing -- August 2000



Photo Gallery

Not Just for Trucks!









Photo gallery Drivers Sign Up and Wait





Service Selection Screens







ATE Fleet Services Costs

- Standard services -- \$1.25/hour
 - One hour minimum
 - \$0.02/minute thereafter
 - Electricity (120VAC), HVAC, computer,
 Satellite TV, Internet access, telephone access,
 email, 24/7 onsite and telephone support
- In-cab training -- \$15.95/lesson
- Fleet communications -- individual rates



ATE Economic Impact

Fleet Benefits

• Quick Return on Investment

Window adapter	\$10.00
First visit free	-\$10.00
Fuel Savings (@\$1.50/gal)	<u>-\$12.00</u>
 First Day Total Expenses 	-\$12.00

- Driver retention/acquisition incentives
- Better communication with drivers
- In-cab training services



ATE Economic Impact

A Win-Win Scenario

- Truck owners reduce operating costs
 - ~ \$3,200/yr/truck (fuel and maintenance costs)*
- Travel centers gain new revenue source
- New Employment (18 employees/100 spaces)
- Drivers rest better and are safer on road
- Reduced fuel use (less dependence on foreign oil)
- Significantly reduced emissions
- Neighborhoods quieter



Additional Driver Services

- Ethernet Internet Connection (\$3.00/visit)
- Wireless Internet Access (\$3.00/day)
- Additional Satellite Channels (\$3.00/tier)
- Movies on Demand (\$3.95 \$9.95)
- Long distance telephone (~\$0.05/minute)



Relationships with Travel Center Operators

- Commitments 366 travel centers, 84% of the corporate travel centers or 46% of the Travel Center industry
- Typical 15 25 year Contracts

ssociation	Centers	Parking Space	es Av	g Spaces	Contracts	Condi	itional	Committed
TravelCenters of America	a 15	1 26,241	9.6%	174	1	770	24,471	26,24°
Pilot TravelCenters LLC	26	0 26,321	9.7%	101	26	,321	0	26,32
Flying J	15	5 22,691	8.3%	146		0	0	(
Petro Stopping Centers	6	1 14,783	5.4%	242	1	241	13,542	14,78
Love's	6	7 2,553	0.9%	38		435	2,118	2,55
PTP	15	3 15,089	5.5%	99	3	186	11,903	15,089
AMBEST	11	4 18,169	6.7%	159	1	188	16,981	18,16
NATSN	10	9 13,124	4.8%	120	1	924	11,200	13,12
G&S Interstate Truck Sto	p 7	0 5,291	1.9%	76		590	4,701	5,29
Independents	<u>3,26</u>	0 127,738	47.0%	<u>39</u>	<u>2</u>	,104	0	2,10
Totals	4,40	0 272,000		62		,759 4.2%	84,916 31.2%	•

<u>Conditional Spaces</u>: The Company signed initial agreements with Petro Stopping Centers, TravelCenters of America and Love's to install 3-5 initial sites for each operator with the mutual understanding that they will sign national contracts thereafter.



Truck Fleet Relationships

LANDSTAR









Truck Fleet Commitment Summary

(Effective 12/31/03)

1	/					
L	ong Haul I	Market	Avg. Fleet Commitm			itments
<u>Size</u>	<u>Fleets</u>	Tractors		Tractors	<u>Fleets</u>	Tractors
1,000 - 15,000	116	329,525	19.7%	2,841	24	78,877
101 - 999	1,891	514,884	30.7%	272	66	18,717
21 - 100	9,598	454,423	27.1%	47	94	4,847
20 or less	73,880	377,331	22.5%	5	71	446
Totals	85,485	1,676,163		20	255	102,887

















England

























Celation Trucking Services, Inc.













Strategic Partners



Intelligent Trusses, Electrical Power Distribution

IT, WAN Monitoring, NOC Call Centers



LCD Displays

QuickTime™ and a TIFF (Uncompressed) decompressor are needed to see this picture.

Touch screens



WAN Equipment & Wireless



Telecom: WAN, Wireless, Long Distance



Environmental Policy Enforcement



Digital Movie Content



Driver Training & Fleet Risk Management

Travel Center Market







Truck Stop Electrification for the 21st Century

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